

In the Claims:

1.(currently amended) A process for converting a copper sulfide matte to blister copper, wherein the process includes the steps of:

    adding the copper sulfide matte and flux to an agitated iron based silicate slag phase; and

    injecting, from a discharge tip at the lower end of a top-submerged lance, an oxidizing gas suitable for reacting with the matte to produce blister copper which forms or adds to a continuous blister copper phase below the iron based silicate slag phase;

    wherein the depth of the iron based silicate slag phase and the level at which the discharge tip of the lance tip is located in the slag phase are such that the injected oxidizing gas agitates the slag phase and reacts with copper sulfide matte dispersed in the slag phase but so that a jet or stream of the injected oxidizing gas is unable to pass through a the lower surface of the slag phase and the oxidizing gas within the jet or stream is substantially precluded from contacting the continuous copper phase.

2.(canceled)

3.(previously presented) The process of claim 1, wherein the slag phase has a depth of from about 500 mm up to about 2 m.

4.(previously presented) The process of claim 1, wherein the slag phase has a depth of from about 700 mm to about 1.7 m.

5.(previously amended) The process of claim 1, wherein the injection is at a mid-region of the height of the slag phase.

6.(previously amended) The process of claim 1, wherein the injection is near the upper surface of the slag phase.

US Serial No. 10/599570  
Page 3 of 14

7.(previously presented) The process of claim 1, wherein the injection is directed downwardly and laterally outwardly for agitating substantially the entire slag phase for substantially uniform dispersal of the copper sulfide matte throughout the slag phase.

8.(previously presented) The process of claim 1, wherein the iron based silicate slag is a lime modified iron silicate slag.

9.(original) The process of claim 8, wherein the iron based silicate slag is a ferrous calcium silicate olivine slag.

10.(original) The process of claim 8, wherein the iron based silicate slag is an iron silicate fayalite slag.

11.(previously presented) The process of claim 8, wherein the iron based silicate slag has a ratio of Fe to SiO<sub>2</sub> of from 1.14 to 2.11, a weight to weight ratio of CaO to Fe of from 0.15 to 0.92, and a weight to weight ratio of CaO to SiO<sub>2</sub> of from 0.22 to 1.11.

12.(previously presented) The process of claim 11, wherein the weight to weight ratio of Fe to SiO<sub>2</sub> is from 1.14 to 1.55.

13.(original) The process of claim 1, wherein a reductant is added to the slag phase for reducing the formation of magnetite and thereby suppressing foaming of the slag phase.

14.(original) The process of claim 13, wherein the reductant is lump coal.

15.(canceled)